

REMARKS

Claims 1-13 are all the claims pending in the application. Claim 9-13 have been newly added herewith.

Claim Objections

Claim 7 stands objected to because of an informality. In response, Applicants have amended claim 7 in a manner believed to overcome the objection.

Claim Rejections - 35 U.S.C. § 102

Claims 1 and 2 stand rejected under 35 U.S.C. §102(b) as being anticipated by Masami (JP 08-340021). Applicants respectfully traverse.

Claim 1 recites, *inter alia*, that the thermoplastic insulating layer is an adhesive. When a thermoplastic adhesive is used, the chip can be directly adhered to the film and a reduction in package thickness can be achieved. This also allows a low coefficient of elasticity for the thermoplastic insulating layer such that it can be easily folded back, thus providing for ease of assembly in addition to a reduction in package thickness.

In contrast, Masami does not include a thermoplastic insulating film which is an adhesive. Particularly, the alleged insulating layer (films 31 and 32) are not a thermoplastic adhesive. Paragraph [0048] of Masami describes that the Masami films 30, 31 are laminated together by thermocompression bonding. After the films are layered and adhered to one another, the adhesivity of the layered film is lost. Accordingly, in Masami, a separate adhesive must be applied to an exposed surface of the wiring film to adhere the chip to the wiring and a chip cannot be directly applied to the alleged insulating layer.

In view of the above, claim 1 is allowable over Masami at least because Masami lacks a thermoplastic insulating layer which is an adhesive, as claimed. Claim 2 depends from claim 1 and is therefore allowable at least by virtue of its dependency.

Claim Rejections - 35 U.S.C. § 103

Claims 3 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masami in view of Yoichiro (JP 2001-308261). Claims 3 and 5 depend from claim 1. Yoichiro is cited only as teaching a cavity formed in a flexible substrate. Even if the Examiner's assertions regarding Yoichiro were proper, the reference still would not correct the above-noted deficiencies of Masami with respect to claim 1. Accordingly, claims 3 and 5 are allowable at least by virtue of their dependency.

Also, one of ordinary skill in the art would not have been motivated to modify Masami with Yoichiro as suggested by the Examiner. Fig. 1 of Masami teaches a particular structure for enabling three-dimensional mounting of ICs in which a single flexible substrate is wrapped around a single semiconductor chip 2. In contrast, Yoichiro teaches a substrate 11 for covering several electronic components. The Examiner has failed to explain how one of ordinary skill in the art would look to Yoichiro, which teaches a substrate 11 for covering several electronic components, for modifying the structure taught by Fig. 1 of Masami. Particularly, the Examiner has failed to explain how the cavity of Yoichiro could be used with the Masami structure or is applicable to a structure such as Masami Fig. 1, where a single substrate is used for a single chip. Accordingly, claims 3 and 5 are further allowable at least because one of ordinary skill in the art would not have been motivated to modify Masami with Yoichiro as suggested by the Examiner.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claim 6 is allowed and that claim 7 would be allowed pending the resolution of a claim objection. Applicants also thank the Examiner for indicating that claim 4 contains allowable subject matter and would be allowable if rewritten in independent form including the recitations of the base claim and any intervening claims. The objection to claim 7 has been addressed above. Also, claim 4 has been rewritten in independent form. Accordingly, claims 4, 6 and 7 are now believed to be allowable.

New Claims

Claims 9-13 have been newly added in order to provide a more varied scope of protection. Claims 9-13 are allowable at least by virtue of their dependency of their dependency from claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.111
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

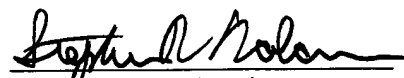
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